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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/641,725	08/15/2003	Manfred Muller	0275M-000761	2172
27572	7590	03/02/2005	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			NGUYEN, PHUONGCHI T	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/641,725	Applicant(s) <b>K</b> MULLER ET AL.	
	Examiner Phuongchi Nguyen	Art Unit 2833	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

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### DETAILED ACTION

1. Applicant's amendment of November 30, 2004 is acknowledged. It is noted that claims 1, 2, 6, 8 and 12 are amended.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki (US55492388) in view of Pandit et al (US6234850B1).

In regarding to claim 1, Kawasaki discloses (figure 14) a fastener for an electric contact with a nut (72), the fastener comprising, a nut (72) including a body (of 72) defining a threading bore (72 $\gamma$  + 72 $\alpha$ ); the body (of 72) having a topside (of nut 72 where 72 engages to spacer 75) having a first electric contact face (of 72 connects to 75) (because metal nut 72 and metal bolt 80 are able to conduct electricity); and a bottom side (of nut 72 where a portion having 72 $\alpha$  located) having an annular axial projection (a portion having 72 $\alpha$  surrounding a cavity (forming by projection having 72 $\alpha$ ), the cavity having a predetermineable depth; a screw (80) fastenably connectable into the nut (72), the screw (80) having a second electric contact face (of 80 at flange 77 connects to 75)., and a separate portion (75) operably clamped between the first (of 72 connects to 75) and second contact faces (of 80 at flange 77 connects to 75). Kawasaki lacks a weld nut and a ring spacer. However, Kawasaki teaches the first embodiment (figure 1), the fastener comprises the weld nut 42 (column 4, line 40); and Pandit et al teaches a spacer (24) is a ring (because the screw 16 has a circular shaft 18, the spacer 24 must be a circular ring as well).

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It would have been obvious to one having ordinary skill at the time the invention was made to provide on a nut 72 in figure 14 of the later embodiment of Kawasaki to be a weld nut such as the weld nut 42 in figure 1 of the first embodiment for increasing electrical contact between the screw and the nut; and to add on the fastener of Kawasaki the spacer ring as taught by Pandit et al for increasing the compression force between the nut and the screw.

In regarding to claim 5, Kawasaki discloses the invention, but lacks the thickness of the spacer ring being equal to the depth of the cavity. It would have been obvious to one having ordinary skill at the time the invention was made to modify the fastener of Kawasaki by providing substantially a pre-determinable thickness of the spacer ring and the depth of the cavity in a fastener welded state to be equal; since applicant does not explain the same thickness of spacer ring and depth of the cavity will make any improvement in the fastener; therefore, the same thickness for the spacer ring and the cavity is a matter of design.

In regarding to claim 6, Kawasaki discloses (figure 14) the fastener comprising the nut (72) defining an internally thread bore ( $72\alpha$ ) having an internal thread length (of  $72\alpha$ ), the nut having an annular area which defines a non-threaded cavity (73); and the screw (80) including an external thread ( $80\beta$ ) having an external thread length (of  $80\beta$ ); wherein the external thread length (of  $80\beta$ ) is dimensionable such that a screw end (opposite to the nut of screw 80) is locatable substantially flush (since screw 80 has external thread  $80\beta$ ) guiding onto the internal thread  $72\alpha$ ) with an internal thread end of the nut (72) when the spacer (75) is clamped.

In regarding to claim 7, Kawasaki discloses the fastener wherein an external cross sectional width of the annular axial projection sectional width is smaller than a topside cross sectional width. Kawasaki lacks an external cross sectional width of the annular axial projection sectional width being larger than topside cross sectional width. It would have been obvious to

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one having ordinary skill at the time the invention was made to have an external cross sectional width of the annular axial projection sectional width of Kawasaki being larger than a topside cross sectional width for ease in manufacturing.

In regarding to claim 8, further in view of claim 1, Kawasaki discloses the invention, but lacks weldable joint formable at a distal end of the annular axial projection. It would have been obvious to one having ordinary skill at the time the invention was made to modify the weld-on fastener of Kawasaki by adding a weld at the joint between the distal end of the annular axial projection and the mating portion for increasing a good connection between distal end of the annular projection and mating portion.

In regarding to claim 9, further in view of claim 1, Kawasaki lacks a ring spacer. However, Pandif et al teaches a spacer (24) is a ring (because the screw 16 has a circular shaft 18, the spacer 24 must be a circular ring as well) and the screw is engaged within the female threaded aperture (forming by the nut 22) (column 3, lines 45-47). It would have been obvious to one having ordinary skill at the time the invention was made to add on the weld-on fastener of Kawasaki the spacer ring as taught by Pandit et al for increasing the compression force between the nut and the screw; when the spacer ring (24) adds on and is positionable between the first and second electric contacts and the spacer ling (24) substantially covering both the first and second electric contacts (direct/indirectly).

In regarding to claim 10, further in view of claim 1, Kawasaki discloses the comprising a cavity depth (forming by projection having  $72\alpha$  measurable from the second end.

Claim 11 is rejected for the same reason of claim 5.

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In regarding to the method of claims 12, 13 and 14, the method of forming a device is not germane to the issues of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

4. Claim 2 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Kawasaki (US55492388) in view of Pandit et al (US6234850B1) as claimed 1 above, and further in view of Hirzmann (US6535394B1).

In regarding to claim 2, Kawasaki discloses the fastener wherein the first (of 72 connects to 75) and second electric contact faces (of 80 at flange 77 connects to 75) together are useable in a motor vehicle (abstract, lines 1). Kawasaki lacks a ground terminal. However, Hirzmann teaches the first (of 300 connects to 210) and second electric contact faces (of 310) comprise an earth (pad) terminal (210) (column 2, lines 62-64). It would have been obvious to one having ordinary skill at the time the invention was made to provide on the fastener of Kawasaki an earth terminal as taught by Hirzmann for having a ground connection in the vehicle.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki (1755492388) in view of Pandit et al (175623485081) as claimed 1 above, and further in view of Hauske et al (US6623214B1).

In regarding to claim 3, Kawasaki discloses the invention, but lacks the spacer ring including polyethylene. However, Hauske et al teaches the spacer ring (20) comprises an elastic material, the elastic material including polyethylene (column 4, lines 55-60). It would have been obvious to one having ordinary skill at the time the invention was made to provide on the fastener of Kawasaki an polyethylene spacer ring as taught by Hauske et al for increasing the good connection between the nut and the screw.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki

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(US5492388) in view of Pandit et al (US6234850B1) as claimed 1 above, and further in view of Kellison (US4642964).

In regarding to claim 4, Kawasaki discloses the invention, but lacks a seal. However, Kellison teaches the spacer ring (28) comprises a seal operably sealing the contact faces (column 2, lines 29-32). It would have been obvious to one having ordinary skill at the time the invention was made to provide on the fastener of Kawasaki a seal spacer ring as taught by Kellison for increasing the good connection between the nut and the screw to protect the fastener and the system from any bad environment.

### *Response to arguments*

7. In regard to the welding structure in the nut, Kawasaki teaches a nut 42 is a weld nut as seen in the first embodiment of figure 1; therefore, a nut 72 in figure 14 of the later embodiment of Kawasaki can be modified as a weld nut for increasing electrical contact between the screw and the nut.

8. In regard to the secondary reference, Pandit et al is used to modify on the fastener of Kawasaki by adding the spacer ring for increasing the compression force between the nut and the screw; instead of teaching "welding structure" as Applicant's discussion.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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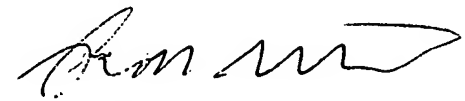
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi Nguyen whose telephone number is (571) 272-2012. The examiner can normally be reached on 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PCN  
February 23, 2005



ROSS GUSHI  
PRIMARY EXAMINER